

What is claimed is:

added 927
1. An apparatus, comprising:

a receptacle having a plurality of side walls, a bottom adjoined to said side walls, and a top movably secured to at least one of said side walls such that said top is adapted for movement between an open position and a closed position;

an information storage device secured to or in said receptacle for storing information relative to contents of said receptacle; and

a communication contact on said receptacle enabling the transfer of information between said information storage device and an information source.

2. The apparatus of claim 1, further comprising:

a processor within a portion of said receptacle; and

a latch in association with said top and at least one of said side walls, said latch adapted to be actuated by said processor to open said top, upon said processor receiving said request signal from a dispensing machine.

3. The apparatus of claim 1, wherein said contents of said receptacle includes at least one of the group consisting of medical supplies, unit dose packages of pharmaceutical drugs, drug kits, drugs, and patient packs.

4. The apparatus of claim 1, wherein said information source includes at least one of the group consisting of a pharmacy computer, a manufacturer's computer, and a wholesaler's computer.

5. The apparatus of claim 2, wherein said latch is actuated by a bimetallic actuator.

6. The apparatus of claim 2, wherein said request signal is generated by said dispensing machine upon said operator entering identification information into said dispensing machine.

7. The apparatus of claim 6, wherein said operator enters said identification information into said dispensing machine through one or more of the group consisting of a keypad or a bar code scanner in association with said dispensing machine.

8. The apparatus of claim 6, wherein said identification information includes at least one of the group consisting of operator identification information, drug identification information, customer identification information, and patient identification information.

9. The apparatus of claim 6, wherein said identification information is operator identification information and drug identification information.

10. The apparatus of claim 6, wherein said identification information is operator identification information, drug identification information, and patient identification information.

11. The apparatus of claim 1, further comprising at least one leg extending from said bottom.

12. The apparatus of claim 2, further comprising an engagement member adapted to engage a portion of said dispensing machine, to be securely held in place at said dispensing machine.

13. The apparatus of claim 12, wherein said portion of said dispensing machine is a drawer in said dispensing machine.

13. The apparatus of claim 12, wherein said portion of said dispensing machine is a docking station on said dispensing machine.

14. The apparatus of claim 12, wherein said engagement member is released from engagement with said portion of said dispensing machine upon said dispensing machine receiving a release signal.

15. The apparatus of claim 1, further comprising contents identification information in physical association with said receptacle.

16. The apparatus of claim 15, wherein said contents identification information is embodied within a bar code label on said receptacle.

17. The apparatus of claim 15, wherein said contents identification information includes information relative to the Hearst Corporation's National Drug Data File.

18. The apparatus of claim 1, wherein said receptacle is about three inches by three inches square and about one and one-half inches deep.

19. The apparatus of claim 1, wherein said receptacle is made of one or more materials from the group consisting of metal, plastic, and disposable materials.

20. The apparatus of claim 1, wherein said contents are removable from said receptacle and said receptacle is adapted to be refilled with new contents.

21. The apparatus of claim 1, wherein said receptacle is designed to enable it to be arranged with a plurality of other similarly designed receptacles in said dispensing machine.

22. The apparatus of claim 2, wherein said dispensing machine, is an automatic, computer controlled dispensing machine.

23. A system of items distribution, comprising:

-providing a receptacle having a plurality of side walls, a bottom and a movable, lockable top;

loading said receptacle with at least one item;

placing said receptacle onto a dispensing structure;

providing a signal to said dispensing structure to cause said receptacle to open said top.

24. The system of claim 23, wherein said dispensing structure is a drawer of an automatic medication dispensing machine.

25. The system of claim 23, wherein said items are drugs.

26. The system of claim 23, wherein said receptacle is adapted to be removed from said structure and reused.

27. The system of claim 23, wherein said receptacle is a durable plastic container.

28. The system of claim 23, wherein said receptacle lockable top includes a latch subassembly including a bimetallic actuator.

29. The system of claim 23, further comprising:
said receptacle having a machine readable chip which contains information regarding said items.

30. The system of claim 29, wherein said dispensing structure includes a communication port for communicating with said chip.

31. The system of claim 30, wherein said dispensing structure is connected to a computer which captures data from said chip and which sends instructions to said chip.

32. The system of claim 31, wherein said computer is in said dispensing structure.

33. An assembly comprising:

an automated dispensing machine having at least one drawer;

a plurality of receptacles adapted to be placed in said at least one drawer, said receptacles each having a plurality of side walls, a bottom adjoined to said side walls, and a top movably

~~secured to at least one of said side walls such that said top is adapted for movement between an open position and a closed position;~~

~~an information storage device secured to or in each of said receptacles for storing information relative to contents of each of said receptacles;~~

~~a communication contact on each of said receptacles enabling the transfer of information between said information storage device and an information source;~~

~~wherein said automated dispensing machine is adapted to receive information from an operator and process a signal to one of said receptacles to cause said one of said receptacles to open and enable said operator to remove at least a portion of the contents of said one of said receptacles.~~

34. The assembly of claim 33, further comprising:

an engagement member on said receptacles to engage said at least one drawer.

35. The assembly of claim 34, further comprising:

a plurality of engagement receiving members in said at least one drawer for engagement with said engagement member of said receptacles;

said engagement receiving members being individually actuatable to separately release each of said receptacles upon receiving a release signal from said automated dispensing machine.

36. The assembly of claim 33, further comprising a data entry device in association with said automated dispensing machine to enable an operator to enter identification information.

37. - The assembly of claim 33, wherein said data entry device is a keypad or bar code scanner in association with said automated dispensing machine.

38. The assembly of claim 33, wherein said information includes one or more of the group consisting of patient identification information, operator identification information and contents identification information.

39. The assembly of claim 33, wherein said drawer is locked and cannot be unlocked without receiving an authorization code signal.

40. The assembly of claim 33, wherein said dispensing machine includes a monitor adapted to display information relative to an operator's transaction with said dispensing machine.

41. The assembly of claim 33, wherein said information includes patient identification information and operator identification information.

42. The assembly of claim 33, wherein said contents includes medical supplies.

43. The assembly of claim 33, wherein said contents includes drugs.

44. The assembly of claim 33, wherein said contents includes drug kits.

45. The assembly of claim 33, wherein said contents includes parts useful in a process.

46. The assembly of claim 33, wherein said receptacles are removable from said drawer.

47. The assembly of claim 46, wherein said receptacles are reusable, adapted to be refilled and closed again for reloading in said at least one drawer.

48. The assembly of claim 33, wherein each of said receptacles is adapted to download its contents information into a memory device of said automated dispensing machine.

49. The assembly of claim 33, further comprising a contents information label on each of said receptacles.

50. The assembly of claim 49, wherein said labels contain bar coded information.

51. A method for the distribution of a plurality of items, comprising:

providing individual receptacles for said items, each of said receptacles including a plurality of side walls, a bottom adjoined to said side walls, and a top movably secured to at least one of said side walls such that said top is adapted for movement between an open position and a closed position, an information storage device secured to or in each of said receptacles for storing information relative to said items to be contained in said receptacles, and a communication contact on each of said receptacles enabling the transfer of information between said information storage device and an information source;

loading said items in individual ones of said receptacles and closing said top of said receptacles;

inserting information relative to said items loaded into each of said receptacles, into said information storage devices;

transporting said loaded receptacles to a receiving station at a location for distribution of said items;

providing an automated dispensing machine for dispensing said items;

entering information regarding said items in said receptacles into a memory of said automated dispensing machine;

placing said loaded receptacles into said automated dispensing machine;

actuating one of said receptacles to open and expose its contents of items by entering required information into said automated dispensing machine.

52. The method of claim 51, wherein said items are medical products for use or intake by patients in a health care facility.

53. The method of claim 52, wherein said required information includes one or more of the group consisting of patient identification information, operator identification information and drug identification information.

54. The method of claim 51, further comprising:
updating inventory information in said memory of said dispensing machine when contents of said receptacle are removed.

55. The method of claim 54, further comprising:
automatically communicating said inventory information from said dispensing machine to a central computer remote from said dispensing machine.

56. The method of claim 51, wherein said required information is entered by an operator through a data entry device in association with said automated dispensing machine.

57. The method of claim 51, further comprising:
loading replacement receptacles with replenishment items;
transporting said replacement receptacles to said automated dispensing machine;
removing one of said receptacles from said automated dispensing machine and replacing said removed receptacle with one of said replacement receptacles.

58. The method of claim 51, wherein said entering of information regarding contents of said receptacles into said automated dispensing machine is accomplished by placing said receptacles into a docking station at said automated dispensing machine and porting data contained in said information storage device through said communication contact into a receiver port at said docking station.

59. The method of claim 51, further comprising:

storing receptacles at an inventory station until said items in said stored receptacles are needed to replenish said automated dispensing machine.

60. The method of claim 59, further comprising:

providing a cart for the temporary holding of said receptacles prior to placement in said automated dispensing machine;

providing a bar code scanner electronically connected to said cart;

scanning bar code labels on packages of said items prior to said items being placed in individual ones of said receptacles;

automatically transferring information scanned from said package labels to said information storage device in individual ones of said receptacles via said cart.

61. The method of claim 51, wherein said information relative to said items includes information such as of the type contained in the Hearst Corporation's National Drug Data File.

62. The method of claim 51, further comprising:

providing a latch in each of said receptacles, said latch in contact with said top of each of said receptacles;

placing said receptacles in a drawer of said automated dispensing machine;

actuating said latch by sending an electronic signal from said automated dispensing machine to an engagement device within said drawer.

63. The method of claim 51, further comprising:

providing a batch of packaged items;

selecting ones of said packaged items to be placed into individual ones of said receptacles;

storing in said information storage device of each receptacle certain information

regarding the packaged items placed into respective ones of said receptacles.

64. The method of claim 63, further comprising:

placing a label on each receptacle, said label containing information regarding the items placed into each respective receptacle.

65. The method of claim 51, further comprising:

automatically maintaining inventory control information about the contents of each of said receptacles.

66. The method of claim 65, further comprising:

updating said inventory control information automatically each time items are removed from said receptacles by a processor receiving entered information at the automated dispensing machine from said operator.

67. The method of claim 66, further comprising:

ejecting a receptacle from said automated dispensing machine when said processor senses that contents of items in said receptacle have fallen below a predetermined par value.

68. The method of claim 51, further comprising:

communicating operator entered information from said automated dispensing machine to respective ones of said receptacles through said communication contact of each receptacle and a respective one of communication ports in said automated dispensing machine in electronic communication with said communication contact.

69. The method of claim 51, wherein said information source is one or more of the group consisting of a manufacturer's computer, a wholesaler's computer and a pharmacy computer.

70. The method of claim 69, wherein said pharmacy computer controls drug inventory in said dispensing stations.

71. The method of claim 69, wherein said wholesaler's computer is connected remotely to said pharmacy computer to exchange drug inventory and distribution information and thereby enable said wholesaler to know when to ship additional drugs to said pharmacy.

72. A receptacle latch, comprising:

a microprocessor;

a muscle wire in contact with a latch member;

an electrical circuit in communication with said microprocessor and said muscle wire,

whereby upon said microprocessor sending a signal through said circuit to said muscle wire, said latch member is actuated to cause said receptacle to open.

73. The latch of claim 72, wherein said latch is contained within said receptacle of claim 1.

74. The receptacle of claim 1, wherein said top, when in the closed position, is adapted to be tamper resistant.

75. An apparatus, comprising:

a receptacle having a plurality of side walls, a bottom adjoined to said side walls, and a top movably secured to at least one of said side walls such that said top is adapted for movement between an open position and a secure closed position;

wherein said receptacle is adapted for placement in a dispensing machine, and wherein said top is adapted to open upon said dispensing machine receiving a request signal from an operator.

76. The apparatus of claim 75, further comprising:

an information storage device secured to or in said receptacle for storing information

relative to contents of said receptacle and/or information relative to said receptacle.

77. The apparatus of claim 76, further comprising:

a communication contact on said receptacle enabling the transfer of information between said information storage device and an information source.

78. The method of claim 66, further comprising:

ejecting a receptacle from said automated dispensing machine when said processor senses that contents of items in said receptacle have fallen below a predetermined par value or is empty and an operator has entered a proper authorization signal to remove a receptacle.

79. The receptacle latch of claim 72, wherein said latch is reusable a plurality of times.

80. The apparatus of claim 24, wherein said contents identification information includes shipping information regarding said receptacle.

81. The apparatus of claim 1, wherein said contents includes items for a particular patient.

82. The apparatus of claim 1, wherein said contents includes items for a particular dosing time.

83. The apparatus of claim 1, wherein said contents includes items for a particular procedure.

84. The apparatus of claim 1, wherein said contents includes items for a particular set of procedures.

85. The apparatus of claim 1, wherein said top is locked in a closed position and is adapted to be opened upon receipt of an electrical signal.

86. An apparatus, comprising:

a transportable structure having a loading surface and a processor in association therewith;

at least one receiving zone on said surface;

a receptacle adapted to be removably secured to said surface at said receiving zone;

a communication port at said receiving zone;

a communication device in association with said receptacle and adapted to be engaged with said communication port when said receptacle is secured to said surface, to enable communication between a processor in association with said structure and said receptacle.

87. The method of claim 51, further comprising:

supplying a replenishment receptacle filled with replenishment items into said automatic dispensing machine;

exhausting the contents of a receptacle previously in said machine before said replenishment receptacle is opened at said machine.

88. An apparatus comprising:

a drawer in combination with an automatic dispensing machine, said drawer adapted to receive a receptacle, said receptacle including a plurality of side walls, a bottom, and a lid, wherein said lid is locked in a closed position until said receptacle receives a signal to open said lid.

89. The apparatus of claim 1, wherein said contents of said receptacle is drugs.

90. The apparatus of claim 1, wherein said receptacle is adapted for placement in a dispensing machine, and wherein said top is adapted to open upon said dispensing machine receiving a request signal from an operator.

91. An apparatus comprising:

a drug distributing structure including a surface for receiving at least one receptacle;

a receiving zone on said surface adapted to securely receive said at least one receptacle;

said receiving zone including a communication port for communicating with said

receptacle;

a processor in association with said structure for processing information received from said receptacle.

92. The apparatus of claim 91, further comprising:

a receptacle attached to said structure.

93. The method of claim 66, further comprising:

sending a refill signal to a refill location when the contents of items in said receptacle have fallen below a predetermined par value.